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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,110	11/13/2001	Shozo Fukunaga	F-7223	6790
28107	7590	03/11/2004	EXAMINER	
JORDAN AND HAMBURG LLP 122 EAST 42ND STREET SUITE 4000 NEW YORK, NY 10168			MARKS, CHRISTINA M	
			ART UNIT	PAPER NUMBER
			3713	10
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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/015,110	FUKUNAGA ET AL.
	Examiner	Art Unit
	C. Marks	3713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 02 January 2004.

2a) This action is **FINAL**.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 6-21 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 6-21 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_

5) Notice of Informal Patent Application (PTO-152)

6) Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

The objection to claims 6-15 for being generally narrative has been withdrawn due to the amendment filed 02 January 2004.

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 6-12 and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oh (US Patent No. 5,616,078) in view of Ishikawa et al. (US Patent No. 6,549,641) further in view of Masanobu (JP 2000-033184).

Oh discloses a match-style 3D video game (Abstract) that comprises a monitor at a prescribed height (FIG 1) that displays images, a 3D video game device controller that generates operation signals based on which game action is instructed (Column 4, lines 10-15). The device includes a pair of right and left main units configured to allow manual operation (FIG 1, see gloves with markers on player). There are motion detection units mounted in each main unit for individually detecting movement along at least two axes and outputting the detected movement as a signal (Column 5, lines 25-37). The content of the operation is reflected based upon the movement of these markers (Column 3, lines 14-17). The game control means controls the progress of the game based on operation signals from the controller (Column 7, lines 44-50). There is also a display control means that creates three-dimensional images from the viewpoint of a virtual camera and displays them on screen (Column 2, lines 50-67). There is also a head detection means that detects the position of the head of a player in the play space in front of the monitor in both the left and right directions (Column 4, lines 50-67). The game

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character on the screen acts in accordance with the player motion to allow the player to feel as they were really fighting with the opponent (Column 3, lines 14-16).

Oh does not disclose that the detection of the head is used to change the viewpoint of the virtual camera in accordance with the change of the detected head position. Ishikawa et al. disclose a game device wherein the head position of the user is detected, as disclosed also by Oh. This would include direction as well as amount in order to reduce the discrepancy that is perceived by the observer between the movement of the head and the displayed image. Ishikawa et al. similarly also disclose a central processing unit used to detect the position of the player based upon the movement of the head and in relation to a display. Ishikawa et al. also disclose that by tracking the movement of the users head, image data for the screen can be generated based upon the result of the detection by the head tracking means and then displayed to the display. Ishikawa et al. disclose that providing a head tracking function that displays the computer screen images in response to the movement of the head, it is possible to display images that have increasingly realistic appeal (Column 1, lines 11-24).

It would have been obvious to one of ordinary skill in the art at the time of invention to apply the teachings of Ishikawa et al. to the system of Oh. Oh stated that by allowing the motion of the user to be reflected in the image, the player can feel as if they were really fighting. One of ordinary skill in the art would therefore be further motivated to apply the teachings of Ishikawa et al. into the system of Oh in order to allow the motion of the users head to be reflected not only in the character on the screen, but also in the viewpoint established. Thus, by applying this function to the system of Oh, one of ordinary skill in the art would recognize that the system of Oh would be even more realistic to the user in that not only would the player's character move according to the player's moves, but also the viewpoint displayed on the screen

would be that which is associated to the players head position, thus creating an even more realistic gaming experience.

Further neither Oh nor Ishikawa et al. disclose the display to be that of only an opponent character displayed as facing the game player when the game player is positioned in a player space in front of the monitor. Masanobu discloses such a feature in that the movement of the player is captured and sent to a processing unit in almost real time. The processing unit then arithmetically operates a movement or damage of a virtual opponent corresponding to the movement of the player in almost real time based on this movement. The movement of the opponent is displayed on a display as a result of this operation. Masanobu discloses that this method of display greatly increases the site presence of a game, making it more realistic. Thus, it would have been obvious to one of ordinary skill in the art to incorporate the display technique of Masanobu into the system of Oh in view of Ishikawa et al. One would be motivated to do so as taught by Masanobu to increase the site presence, thus making the display more realistic in that only the opponent would be displayed as opposed to two characters. This is definitely more realistic to a real fight in that you would only see the opponent and would not have the means to see oneself. Thus, for the reasons disclosed by Masanobu, a skilled artisan would be motivated to use such a display.

Regarding claim 7, it would be obvious to one of ordinary skill in the art that the system of Oh could detect the height of the user's head as it is disclosed that the head is detected and the image is based upon a reference sheet. Being that the system can recognize the reference sheet and detect the position of the head, one of ordinary skill in the art would find it obvious that the height of the head could therefore be obtained.

Regarding claim 8 and 9, Oh discloses displaying an opponent character on the monitor screen (FIG 1). In match-style video games, it is well known to produce stage effects as those

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claimed in order to appropriately stage the display for making a hit or being hit. It is well known in the art to accentuate a hit by moving the viewpoint to the area of the hit or to shake the monitor to simulate the effects of a hit. It is merely an optional matter of design choice by one of ordinary skill in the art as to what kind of effects are desired and the application of such effects would have been obvious to one of ordinary skill in the art in regards to the system of Oh in view of Ishikawa et al.

Regarding claim 10, as both characters are displayed on the screen and the motion is simulated as per the actual action of the character, it would be obvious to one of ordinary skill in the art that the system of Oh recognizes the movement of the player's hands as punch signals (Column 1, lines 45-50) and that a hit effect would be performed such as the display would therefore show the punch landing on the opponent. This would be axiomatic to the system of Oh as Oh discloses that the game character is responsive to the motion of the player as to make the player feel as if he were really fighting (Column 3, lines 14-16). Thus, it would be obvious to one of ordinary skill in the art that from this disclosure, the machine axiomatically has a representation to be displayed when a player is hit.

Further regarding claims 11 and 12, Oh discloses that both the player and the opponent are displayed on a screen and can interact in a fighting game. As disclosed above, it is obvious to the system of Oh that the punches land on the opponent character. Oh does not specifically disclose the way in which an opponent reacts to being hit by a player.

Masanobu disclose that an opponent character is displayed on the screen and the movement of a player is captured by a camera and sent to the main device. The device arithmetically operates a movement or damage of the virtual opponent corresponding to the movement of the player (Abstract). As an example, Masanobu discloses that when the player delivers a straight punch towards the opponent, the state of the punched opponent is

arithmetically operated to display a state of bending backwards (Abstract). From the disclosure that the CPU can arithmetically operate a movement and that when a straight punch is delivered, the opponent bends over backwards, one of ordinary skill in the art would obvious infer that if a sideways punch from either the right hand or left hand occurred, the opponent would be arithmetically calculated to lean towards the other side as a reaction or as a result. Thus, either a damage action is shown on the monitor, or the CPU calculates a movement.

It would have been obvious to one of ordinary skill in the art at the time of invention to apply the teachings of Masanobu to the disclosure of Oh in view of Ishikawa. One of ordinary skill in the art would be motivated to use the CPU device of Oh to calculate reactions displayed by the opponent in order to create an even more realistic game as it would be understood by one of ordinary skill in the art that in a real boxing game an opponent would inherently react to the motions and movement of the player.

Regarding claim 16, Oh discloses that the parameters of the player are based on detected three-dimensional motion (Abstract).

Regarding claim 17, the main units are in the shape of a glove and the player puts their hand in them (FIG 1).

Regarding claim 18, the controllers communicate over a signal line that is embodied to be a number of different kind of signaling means such as radiation, light, infrared, etc. Any other types of signal lines used to communicate with the device would be obvious to a skilled artisan as a design choice where the artisan would be motivated by the requirements and needs of the system.

Regarding claim 19, Oh embodies and number of different types of sensors to communicate the position of the gloves. Though Oh does not specifically name an acceleration sensor, such a device would be obvious to a skilled artisan as it is well known in the art to use

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such devices to detect motion. One would be motivated to do so as they are easy to obtain and cheaper to manufacture than some of the other type of sensors; however, the usage of such would be a design choice where the artisan would ultimately be motivated by the requirements and needs for the sensor.

Claims 13-15 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oh (US Patent No. 5,616,078) in view of Ishikawa et al. (US Patent No. 6,549,641) further in view Masanobu (JP 2000-033184) further in view of Sakakawa (JP 09-173645).

What Oh, Ishikawa et al., and Masanobu disclose, teach, and/or suggest has been discussed above and is incorporated herein.

The above combination of references does not teach of displaying a hitting mark on the opponent character.

Sakakawa disclose a boxing game that is operable in much the same manner as Oh. Sakakawa further includes the display of the opponent character to have a hitting mark associated with a hitting area. The hitting mark is displayed in a hitting area that is out of the defensive region of the hands (Drawing 1). Sakakawa discloses that the punch must be to an opening, thus obviating to one of ordinary skill in the art that if the hands were to be covering the area, the hitting mark would not be available and would represent the opponents defensive region. Sakakawa discloses a number of hitting regions, therefore it would be obvious to one of ordinary skill in the art that each region is associated with its own operation signal for the movement required to hit it based upon the fact that the opponent reacts based upon the region in which it is hit. Further, Sakakawa discloses that when a mark is displayed and the opponent is hit, life points (as opposed as a score to be more realistic) are awarded to the player (page 3, translation).

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It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the teachings of Sakakawa into the system as disclosed by Oh in view of Ishikawa et al. In application to Oh et al., one of ordinary skill in the art would understand that the hit marks could be applied to the opponent character based upon the teaching of Sakakawa and that when the opponent character would have it hands in the way, thus preventing an opening (as suggested by Sakakawa), a hit mark would not be displayed. One of ordinary skill in the art would be motivated to make this incorporation in order to guide the player to become better at the game by providing them with information relating to hit areas, as well as implementing a scoring more reflective of an actual boxing game, thus encouraging the player and in turn making the game more enjoyable as the player would be more likely to be successful and feel as though the scoring was realistic to a real life battle.

#### ***Response to Arguments***

In response to the Applicant's argument that the §112 rejections should be withdrawn due to the amendment, the Examiner agrees and the associated rejections have been hereby withdrawn.

Applicant's arguments with respect to claims 6-15 have been considered but are moot in view of the new ground(s) of rejection. The Masanobu references teaches that which the Applicant contends is absent in Oh in view of Ishikawa et al. and is detailed above.

#### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Marks whose telephone number is (703)-305-7497. The examiner can normally be reached on Monday - Thursday (7:30AM - 5:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teresa J Walberg can be reached on (703)-308-1327. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



cmm  
March 9, 2004



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